Kansas Department of Health and Environment

Bureau of Environmental Remediation, Remedial Section

State Cooperative Program

Local/State Partnership Addresses Ground Water and Soil Contamination in Clay Center

Background:
The former GTI, Inc., Site is located in Clay Center, Kansas in Cloud County. The site is approximately 11 acres in size. The site is currently operated by GT Manufacturing, Inc. who purchased the assests from a bankruptcy estate. Grain bin dryers and skid-loader attachments are currently manufactured at the facility.

In 1992, KDHE conducted a preliminary investigation after a public water supply well (PWS Well #2) was contaminated and taken out of service due to tetrachloroethylene (PCE) contamination above drinking water standards. The preliminary investigations identified the presence of PCE, trichloroethylene (TCE), 1,2 dichloroethylene (1,2-DCE), toluene and xylene in soil and ground water at the site. Results from the preliminary assessment indicated that the former GTI facility was a potential source for the VOC contamination and confirmed VOC contamination of PWS Well #2 and identified that PWS Well #9 was threatened by the contamination.

KDHE utilized funding from lease payments by GT Manufacturing, obtained through a December 20, 1994 motion of the trustee for the bankruptcy estate to conduct additional investigation at the site. From March to June 1995, KDHE collected 59 ground water samples, four soil samples and installed ten permanent monitoring wells as part of the needed investigation. The results confirmed the conclusions of the 1992 preliminary investigation.

Soil probing conducted by KDHE in April 1996 identified two primary source areas for contamination at the site: the paint shed and the Research and Development (RAD) building.

In early 1996, KDHE scheduled a meeting with various stakeholders, including the bank, City, and current lessee, to discuss future options for the site. The stakeholder group agreed to pursue a joint local/state partnership designed to allow the City and other stakeholders to address the site through a Voluntary Agreement with KDHE. Additionally, the City, with KDHE's assistance, applied for an Urgent Needs Grant. The grant was approved in the spring of 1996. The Voluntary Agreement was signed by the City on November 7, 1996.

Hazleton Air Stripper

Solution:
The City installed a Hazleton air stripper on PWS Well #2 which pumps at a rate of 250 gallons per minute to capture the ground water contamination. The extracted ground water is treated at PWS Well #2 using the air stripper and is discharged to the storm water sewer system. A connection exists to connect the treated water to the City's public water supply system if deemed necessary. To date, more than 400 million gallons of water have been treated.

A second component of the site cleanup consisted of excavation and removal of soil containing PCE concentrations greater than 250 parts per million at the RAD building and the paint shed. Excavated soil was transported offsite for disposal in a Subtitle D landfill.

Excavation resulted in a total of 151 cubic yards of contaminated soil removed at the paint shed and an additional 284 cubic yards of soil from the RAD building. Ground water monitoring of the contamination is currently being conducted by the City and KDHE. Dramatic reductions in contamination have been seen. The once contaminated property is currently back in productive use.

Benefits:

- **Protection of PWS Well #9 from contamination.**
- **Treatment of 400 million gallons of contaminated water.**
- **Excavation of 435 cubic yards of contaminated soils.**
- **20 acre property put back in productive use.**

Prepared by the Kansas Department of Health and Environment, Bureau of Environmental Remediation, Remedial Section. May 1, 2003.